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ABSTRACT

Presented in this document are several articles concerning recommendations about the Occupational Safety and Health Act of 1970 (OSHA) and its implications for higher education. It is time for an educated look at facilities and programs and the beginning of plans which, in the long run, will bring colleges and universities into compliance with OSHA standards and recordkeeping requirements. A 3-pronged planning approach to OSHA compliance is recommended: (1) establish a formal working framework to coordinate OSHA-related matters within the instituticn; (2) once a formal structure has been established and experts are thoroughly versed on OSHA standards and recordkeeping requirements, begin to relate OSHA regulations tc specific institutional facilities and programs; and (3) allocate financial resources for compliance. (Author/HS)

NACUBO

Special Report 73-1

March 5, 1973

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OSHA: IMPLICATIONS FOR HIGHER EDUCATION

The Williams-Steiger Occupational Safety and Health Act of 1970 is in force and is beginning to exercise a profound influence over the daily functioning and long-range planning of employers throughout the United States, colleges and universities included. Several educational institutions have already experienced compliance inspections; others are taking major steps to insure that campus facilities and programs are in conformity with OSHA standards and record keeping requirements prior to the onset of regular inspection. Although colleges and universities are not a prime "target area" of the OSHA program, the effect of federal regulation over occupational safety and health will be felt, to some degree, on every campus.

In March, 1973, institutional attitudes vis-a-vis OSHA should not be dominated by panic or alarm. Rather, it is time for an educated look at facilities and programs and the beginning of plans which, in the long run, will bring colleges and universities into compliance with OSHA standards and record keeping requirements. A three-pronged planning approach to OSHA compliance is recommended below:

1) Establish Institutional Coordination: Establish a formal working framework to coordinate OSHA-related matters within the institution. Designate a certain individual (or individuals) to become resident expert(s) and to coordinate all aspects of compliance with all offices and departments of the institution.

2) Relate OSHA to the Institution: Once a formal structure has been established and experts are thoroughly versed on OSHA standards and record keeping requirements, begin to relate OSHA regulations to specific institutional facilities and programs. With a well coordinated campus-wide campaign to eliminate occupational safety and health hazards from the institution, begin to isolate areas of danger and potential non-compliance. The assistance of an outside inspector (see pages 5-6) may be beneficial during this process of relating the OSHA program to the specific institutional environment. The end product of this exercise should be the formulation of a long-range plan, including financial implications, for eliminating safety and health hazards on campus.

3) Allocate Financial Resources for Compliance: The financial implications of OSHA are great and must be met with a correspondingly great commitment to eliminate hazards on the part of the

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institution. A gradual allocation of budgetary resources is necessary to finance the long-range institutional plan developed. Depending on the institution, resources will probably be required to meet OSHA regulations in each of the three following areas: a) purchasing and reconstruction (and modification of planned construction) to redress hazardous situations in facilities and program; b) administrative costs to provide for adequate record keeping and coordination of all OSHA-related activities; c) identification of resources to meet potential fines levied by OSHA prior to the completion of the long-range plan.

NACUBO is presently working in conjunction with several business-related associations to coordinate activities and present respective memberships with accurate, timely information on OSHA. A series of two-day workshops is being planned for the presentation of material relating OSHA to the institutional environment in a direct manner. Further information on these workshops will be forwarded when available. All institutional personnel with responsibility for OSHA compliance are urged to attend.

In the meantime, the following *Special Report* is presented to assist colleges and universities in understanding the OSHA program, and to encourage the creation of formal institutional plans for the elimination of safety and health hazards.

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SPECIAL REPORT 73-1

March 5, 1973

I. OSHA ON CAMPUS: BACKGROUND AND IMPACT

The following paper was written for NACUBO by Dr. John F. Adams, Director, Center for Insurance Research, Georgia State University.

Although most are now familiar with the meaning of the letters OSHA and can correctly translate them to Occupational Safety and Health Act, still one may occasionally hear the question, "What is it?" or "What does it mean to me?" The fact is that all must become familiar with the terms of that Act and all responsible officers should reflect that familiarity by programming such changes as may be required to bring their institutions into conformity with the standards set by the Act.

The Williams-Steiger Occupational Safety and Health Act was passed in 1970, a legislative response to an apparent reversal of the long-term downward trend in industrial incidents beginning in the 1960s. In essence, the Act authorized the Department of Labor to promulgate regulations setting forth standards of safety and health to be met in places of employment and provided for their enforcement. The effective date of the Act was April 28, 1971, with the record keeping requirements to be imposed beginning July 1, 1971.

The federal regulations and the standards to be promulgated by the Secretary of Labor were to be issued as soon as practicable, but within two years of the effective date of the Act. The legislation specifies national "consensus standards" and/or such federal standards as have been established by legislation or regulation. The purpose of this provision was to utilize insofar as feasible and appropriate those safety and health standards with which affected persons are already familiar and on which there is substantial agreement. The first regulation, including general standards, was issued in the *Federal Register* during May 1971; it was updated, corrected and issued with an index in the *Federal Register* of October 18, 1972, entitled "Occupational Safety and Health Standards." Standards for other industries, e.g., construction *(see Federal Register Part II, Safety and Health Regulations for Construction, December 16, 1972)*, also have been issued and are subject to enforcement in the same manner as the general regulations.

WHO MUST COMPLY?

The Act and the regulations promulgated under it apply to employers, meaning any person hiring others, engaged in a business affecting commerce; excluded are the United States and any state or political subdivision of a state. However, the Act was designed to operate through state governments. The states are encouraged to develop programs for establishing and enforcing occupational safety and health standards for approval and continuing review.

When a state statute establishing standards and the mechanism for their enforcement "at least as effective as that of the federal government" has been approved, the state may undertake enforcement of the program. Until such time as the state acts have been approved, however, the federal procedures will apply. At present, forty-nine states and territories have submitted plans and eight of these have been approved.[1] As rapidly as they are approved, including enforcement provisions, the federal statute will be superceded in those jurisdictions and inspection and compliance procedures at the state level will be undertaken. Following the approval of a state plan, however, there will be an initial period during which state procedures will be continuously reviewed by the Department of Labor. At the end of three years, if the state program has met the criteria established by the federal government, it will be finally approved for state enforcement. During this three-year period, however, some vague mix of federal-state regulations will apply. Thereafter, periodic review only will be undertaken.

State and municipal governments and their instrumentalities currently are excluded from the application of the federal program. However, these are to be covered by whatever state plans are adopted. State institutions are not now subject to inspection, nor are they subject to fine by the federal government inspectors. They are subject to moral suasion and public pressures to conform. Failure to do so may enhance reconsideration of immunity provisions with respect to liability. As the state plans are approved, of course, each such institution, as well as all other employers, should review them to determine methods of enforcement and disciplinary penalties to be imposed, and to determine differences (improvements) over federal standards for use in determining compliance.

It should be noted that no state plan will be approved until regulations governing state and municipal employment, at least as effective as those covering the private sector, are included; disciplinary procedures must be provided.

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[1] Montana, New Jersey, North Carolina, North Dakota, Oregon, South Carolina, Utah, and Washington are the states with approved plans. A preliminary injunction precluding the approval of further state plans was filed and has been resolved to permit the approval of further state plans.

STANDARDS, PENALTIES, AND INSPECTIONS

There is little which is new or different about the safety and health standards which now appear in the regulations. In most cases, these are adaptations of existing sets of standards established by consensus by industrial or other national interest groups (e.g., Underwriters Laboratories) for the guidance of their members. However, these standards are now enforceable, that is, they are subject to third party (government) inspection and enforcement proceedings. In the past they have been used by local authority in some cases, in others they have not. Similarly, they could have been imposed by contract, but in many cases they were not. The standards, by and large, are not unfamiliar; building codes imposed by state and local government contain many of them and these are enforceable. However, they have changed from time to time and facilities already in being were not required to meet them until rebuilding occurred. In a number of cases these are now violations under the regulations and will require attention. Similarly, the standards recommended by the Underwriters Laboratories became a measure for insurance purposes and were sometimes written into contracts. Under the OSHA regulations, to the extent adopted, these become enforceable standards without regard to prior agreement. Thus, while most of the standards set forth in the Act are not new, to those engaged in plant operation or personnel supervision they are significantly different in that they are now enforceable standards.

In accordance with the terms of the regulations, violations (deviations from the standards established) may be cited and institutional as well as individual violation fines may be levied. The schedule of fines varies from $50 to $10,000, with individual infractions ranging from $50 to $1,000, capable of being levied daily until such time as they are corrected.

Inspections to determine violations may come about in either of two ways. First, a complaint by an employee or interested member of the public with respect to a specific violation will be investigated by the Department of Labor. If a violation (deviation from standards) is found to exist, the employer will be cited and an appropriate fine levied (may be suspended or charged, depending on the seriousness of the incident or violation). Second, when the program is fully functional, regularly scheduled visits by inspectors will occur covering an entire facility. In the same manner, if violations are discovered they will be cited and appropriate fines charges.

VIOLATIONS

Violations may be catalogued by industry and by type in a variety of ways. In general, they range from typical industrial practice violations in the shops or warehouses and maintenance facilities to classrooms, laboratories and public facilities. They are classified by the regulation under a number of headings, as follows:

1) Walking and working services, e.g., warning of change in floor level by color differential;

2) Means of egress, e.g., full-time lighted exit signs;

3) Powered platforms, manlifts and vehicle model work platforms, e.g., cableguards, warning signs, controlled usage;

4) Occupational health and environment control, e.g., gas or sound monitoring;

5) Hazardous materials, e.g., appropriate labels and storage facilities;

6) Personal protective equipment, e.g., goggles when using torch, grinders or explosive chemicals;

7) General environmental controls, e.g., air supply monitoring, temperature controls and employee training;

8) Medical and first aid procedures, e.g., labeled equipment, including inventory, at each work location;

9) Fire protection, e.g., appropriately located and inspected extinguishers, standpipes, sprinklers;

10) Compressed gas and compressed air equipment, e.g., appropriate pressure valves, storage facilities and access control;

11) Materials handling and storage, e.g., weight and shelf height as well as container control;

12) Machinery and machine guarding, e.g., guards on grind wheels, fan guards of proper mesh;

13) Hand and portable power tools and other hand-held equipment, e.g., appropriate inspection procedures, grounding equipment;

14) Welding, cutting and braising, e.g., appropriate gas storage and distribution facilities, face masks;

15) Electrical, e.g., three-wire grounded circuitry (all wall circuits must have three-pronged outlets); and

16) Other special operations.

Special regulations have been published for shipbuilding, construction, mining and several other industries. All may be obtained from the Department of Labor directly or from the Government Printing Office.

Individual facility violations may include such deviations as an improperly secured staircase (there must be a handrail if there are more than four risers); inappropriate wiring, three-wire grounded circuits should be available; improperly identified and unlighted exit markings; improper location and inappropriate inspection procedures for fire extinguishers; improper storage of chemicals in the classroom or laboratory areas; inadequate personal equipment for protection in laboratory, and improper instruction or supervision in safety procedures. In the usual educational building and/or laboratory facility, particularly if it is old, there may

be numerous violations because of changing standards and maintenance procedures and because of employee modifications of equipment to suit particular purposes. A casual inspection may result in a number of violations in nearly every facility. Proper and regular inspection by plant, security, personnel, and supervisory personnel after a review of the standards will suggest the types of problems with which the institution may be confronted and the magnitude of the modification procedures required to bring the facility into conformity.

The present statute and regulations really suggest only a part of the present problem. Counsel for liability insurance carriers, government, and some of the institutions involved generally agree that the long-term implications of the program with respect both to public policy and to facilities repair are manifestly greater than they now appear. Perhaps the largest area for education, because of its public participation, involves liability not only to the worker but also to the public, who have a right to expect security precautions at least equal to the standards for employees.

WHAT TO DO

Immediate needs are for a review of the record keeping requirements, directions for which can be obtained from "Record Keeping Requirements Under the Williams-Steiger Occupational Safety and Health Act of 1970," U. S. Department of Labor. A casual inspection of facilities and procedures should suggest items which need attention and for which a plan (budget and program for rehabilitation) needs to be established in an appropriate time frame. Some assistance in this latter respect may be obtained directly from the U. S. Department of Labor which maintains a staff which will respond to questions with respect to standards and, in some cases, will inspect a facility noting violations (but will neither write them up for fine nor report them to the compliance division), at least for the present.

Ten area offices of the Occupational Safety and Health Administration have been established to offer guidance and disseminate information on a regional basis. A call to one of these offices should provide answers to questions of a general nature, and inquiries as to what publications and other OSHA services are available in each specific jurisdiction. Such a call, however, should be directed specifically to the regional Office of Education and Training, *which should not be confused with the Office of Compliance*. Telephone numbers for the national and ten regional ofices of OSHA are listed below:

National office: Washington, D. C. - 202/961-3914

Region I: Boston - 617/223-6712
Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont.

Region II: New York - 212/971-5941
New York, New Jersey, Puerto Rico, Virgin Islands.

Region III: Philadelphia - 215/597-4102
Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, West Virginia.

Region IV: Atlanta - 404/526-3573
Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee.

Region V: Chicago - 312/353-4716
Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin.

Region VI: Dallas - 214/749-2477
Arkansas, Louisiana, New Mexico, Oklahoma, Texas.

Region VII: Kansas City - 816/374-5249
Iowa, Kansas, Missouri, Nebraska.

Region VIII: Denver - 303/837-3883
Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming.

Region IX: San Francisco - 415/556-0584
Arizona, California, Hawaii, Nevada.

Region X: Seattle - 206/442-5930
Alaska, Idaho, Oregon, Washington.

The institution's liability and compensation insurance carrier also maintains inspection personnel and, as a matter of contract, has in many cases agreed to provide institutions with an inspection service. A detailed look at facilities and programs with a trained inspector versed in the regulations is a good beginning and demonstrates the good faith approach of the institution to the entire problem.

The Department of Labor and a number of private organizations are offering publication services which purport to keep one current with changing standards and violations. Most of these services have some use, but selection probably should await preliminary review of plant, facilities and program with someone versed in OSHA standards and inspection procedures. Selection of the appropriate service, if deemed necessary, should be made when one fully understands the areas of principal concern with respect to his own establishment and program. Use of compensation-liability insurance inspection personnel in this context probably should be considered, depending upon contract provisions and the relationship between the carrier and the institution.

The government and a host of private agencies are now, or soon will be, offering workshops designed to update personnel (including plant, security, personnel) in the application of the regulations and standards. NACUBO, in coordination with several other business-related associations, is planning a series of workshops, the first of which will probably be available in the late spring or early summer, geared specifically to OSHA implications for higher education. These will span approximately two days and should be attended by the chief business officer and his associates engaged in plant, program, security, and personnel operations. Academic administration should participate in these workshops, as well, since in the long term this area is the one in which principal violations (and the

most expensive) are likely to occur. The education of employees and the public as to the procedures undertaken by the institution for their protection are significant in this area. These should be made a matter of record and regular public release.

II. The OSHA Inspector on Campus: A Recent Institutional Experience

Several colleges and universities have already reported experiences with OSHA compliance officers visiting their campuses. To date, all known visits of this nature have been the result of specific complaints filed with the Department of Labor. Although educational institutions are not high on the list of "target areas" for OSHA compliance, and are not yet subject to regular compliance inspections, the full impact of OSHA regulations and procedures has been felt in this limited number of instances. The case history cited below is one documented example of what has happened, and will continue to happen, with respect to the process of inspection, recommendation and penalty.

A major university, which will remain unidentified, was recently inpected by an OSHA compliance officer as a result of a written complaint filed with the Department of Labor. The safety hazard which instigated the complaint to the OSHA office was, as it turned out, not a violation of OSHA standards. In addition, the specific hazard had been dealt with and removed prior to the arrival of the inspection officer. Once the inspector was on campus, however, all facilities were opened up for inspection and subject to strict interpretation of prescribed standards and regulations. The inspector subsequently spent three weeks on campus with staff in areas such as plant, personnel, insurance and security.

Forty specific items were cited as violations, many of which were repeated several times for a total of 400 violations of OSHA standards. These health and safety hazards were found in 22 different departments of the university. Most commonly cited violations involved machine grounding, fire extinguishers which were not secured, gas cylinders which were not strapped down, the absence of three-pronged electrical outlets, and safety hazards such as ladders on the floor. One major violation cited was related to a water leak on the floor of the student union close to electrical equipment. Despite evidence that the leak was recent and assurance that it would be remedied immediately, there was danger of having the student union closed down entirely for an indefinite period of time. After negotiation, the inspector and university officials agreed on a fine of $500 to cover the major safety hazard. Although the final OSHA inspection report, citations included, has not yet been received by the university, fines for the minor violations, after positive negotiations, are expected to be limited to a total of $500.

Along with the anticipated $1,000 in total fines to be levied against the university, a budget allocation of $25,000 has been made for bringing university facilities into compliance with OSHA standards. This figure is solely for use in correcting hazards related to the 400 violations cited. Two further OSHA "recommendations" to the university would involve major reconstruction and are presently being challenged by the university. Should these items eventually be included in the cost of compliance, however, the $25,000 figure will be more than doubled.

In addition to the immediate outlay for fines and the ultimate expenditure for eliminating cited hazards, further OSHA-related expenses of major significance include the administrative costs of record keeping and internal inspection. To cite one example, the university in question must now have each of the 3,000 fire extinguishers on campus checked on a weekly basis to be certain that they are secure and placed properly. Written records of these internal inspections must be maintained for OSHA reference.

To place the above experience in proper perspective, it should be noted that the university was praised by the compliance officer for maintaining generally hazard-free facilities and being highly responsive to issues related to occupational health and safety. Due to this attitude and willingness on the part of the institution, potential fines of overwhelming magnitude were reduced significantly.

III. Checklist of OSHA Violations

The following checklist should demonstrate the general emphases of the OSHA program, and perhaps identify general areas of hazard related to institutional facilities and program. It illustrates many of the health and safety points a compliance officer would look for in conducting an on-campus inspection. The checklist was prepared in early 1972 by the Middle Atlantic Region of the Occupational Safety and Health Administration as a tool for guidance in workshops and seminars. It should be used for general guidance alone, and should not serve as a replacement for the systematic analysis of OSHA standards *as they relate to specific institutional environments. A satisfactory "score" on the checklist should not forestall the process of becoming completely familiar with OSHA regulations, standards and record keeping requirements.*

Walking-Working Surfaces

1. All factory walkways properly marked and cleared. Yes No
2. All office area walkways cleared. Yes No
3. All exterior walkways cleared and in good repair. Yes No
4. All floor holes, floor openings, wall openings and skylights are properly guarded. Yes No
5. Non-slip mats, gratings, false floors and other like materials are in use in wet and other hazardous areas. Yes No
6. All mats, gratings, etc., are in good repair. Yes No
7. Floor openings, hatchways, manholes are properly guarded with covers meeting specifications. Yes No
8. All open sided floors, platforms and runways four ft. or more above ground or floor level are properly guarded with toe boards installed. Yes No
9. All railings and toeboards meet specifications and are in good repair. Yes No
10. All elevated load-bearing floors and roofs are conspicuously posted reflecting safe load limits. Yes No
11. All other load-bearing surfaces (roofs of ovens, crane cab roofs, duck boards, etc.) are properly installed, in good repair, with load capacity clearly marked. Yes No

Stairs and Stairways

1. All stairways (other than fire exits) and elevator and escalator shafts are clear, handrails and/or guardrails provided, treads and risers in good repair with non-slip surfaces and adequate illumination. Yes No

Ladders and Scaffolds

1. All ladders (except fixed and tressel ladders) equipped with safety feet. Yes No
2. All ladders in good condition; wooden ladders maintained unpainted. Yes No
3. Precautions are taken to prevent the use of metal ladders where there is possibility of electrical shock. Yes No

Ventilation

1. All work areas appear to be properly ventilated; no accumulation of smoke, dust, etc., was noted. Yes No
2. Temperature, humidity and air movement in work areas apparently within comfort limits. Yes No

Life Safety

1. Location and easy accessibility of at least two fire emergency exits (minimum requirement) for each work area confirmed with special attention to high hazard area. Yes No
2. Each fire emergency exit is properly marked and illuminated. Yes No
3. Is the route to safety clear and unobstructed from the fire doors? Yes No
4. All fire emergency doors swing in the direction of exit travel. Yes No
5. Fire emergency doors cannot be locked from inside; each is equipped with panic or other simple type of releasing device. Yes No
6. In checking fire alarm system, all post indicator valves examined and opened and sealed; all gravity tanks full. Yes No

Fire Suppression Equipment

1. Does this facility have a volunteer fire brigade? Yes No
2. Are there regular training sessions being conducted? Yes No
3. All portable fire extinguishers are readily accessible, properly located, and show servicing is up-to-date; maximum travel distance for all units not in excess of 75 feet, or 50 feet in hazardous areas. Yes No
4. Each extinguisher has been checked for its adaptability to the hazard presented in the immediate area. Yes No
5. Clearance of 36 in. maintained between sprinkler deflectors and top of stored material. Yes No
6. All fire hoses in proper position and appear to be in good condition. Yes No
7. Where manual fire alarm boxes are used, each is accessible from maximum travel distance of 200 ft., the travel path unencumbered. Yes No
8. Where fire control systems are used which are a hazard in themselves, appropriate warnings of such hazard are posted. Yes No
9. All potential sources of fire and/or explosion from gases, vapors, fumes, dusts, and mists inspected for correctable hazards. Yes No

Electrical Wiring, Apparatus and Equipment

1. Clearly illustrated instructions for resuscitation of persons suffering from electrical shock are posted in all electrical stations, switchboards and transformers; entrance restricted to unauthorized persons. Yes No
2. Procedures for de-energizing electrical circuits reviewed for effectiveness. Yes No
3. Examine extension cords and other temporary wiring for breaks, fraying, or other defects. Yes No
4. All interior wiring systems have grounded conductors continuously identified throughout the plant's electrical system. Yes No
5. Electrical equipment operating between 50 and 600 volts are protected against accidental contact by an approved cabinet or other enclosure. Yes No
6. Insulation mats and protective gear are provided in all areas where more than 150 volts to ground are necessarily exposed within eight ft. from the floor. Yes No
7. Sufficient access and working space is provided and maintained about all electrical equipment for ready and safe operation. Yes No.
8. Each electrical outlet box is provided with a cover which effectively protects the hazard from accidental contact. Yes No
9. Inspection reveals instructions for disconnection are attached to each electrical motor and appliance. Yes No
10. All portable electrical tools are equipped with hand-operated switches which are manually held in the closed position; all electrical cables in good condition. Yes No
11. In locations where dust collects on electrical motors causing potential ventilation deficiency, suitable type of enclosed motor is used. Yes No
12. In battery rooms, provision has been made for diffusion of gases to prevent the accumulation of an explosive mixture. Yes No

Industrial Sanitation

1. Toilet facilities meet the following standards:
   a) Separate facilities are provided for each sex. Yes No
   b) All are within 200 ft. of the work area where practicable. Yes No
   c) The number of facilities for each conforms to standard. Yes No
   d) Toilet rooms are clean, adequately lighted and ventilated. Yes No
2. Dressing rooms, where required, are clean, adequately lighted and equipped with individual clothes facilities. Yes No
3. Lavatories are provided in appropriate numbers with hot and cold water, individual hand towels, and are maintained in good repair; lavatory area is clean and well lighted. Yes No
4. Drinking fountains are installed within 200 ft. of all work areas; they are clean and maintained in good working condition. Yes No
5. Outlets for non-potable water are clearly marked to indicate that the water is not for human use and/or consumption. Yes No
6. There are no cross-connections, open or potential, between a potable and non-potable water supply. Yes No
7. Receptacles for waste are adequate in design and number; they are leak-proof, well-maintained and serviced regularly. Yes No

8. Adequate control over insects, rodents and vermin. Yes No
9. The lunch room is adequate in size, clean, well-maintained and physically separated from areas offering the hazard of exposure to toxic materials. Yes No
10. All food is properly stored, refrigerated where appropriate, and handled under acceptable sanitary practices. Yes No
11. Vending machine areas are maintained in a good sanitary condition. Yes No

Material Handling

1. All fiber rope and fiber rope slings used in material handling are in good condition; no evidence of excessive wear or visible defects. Yes No
2. All wire rope and wire rope slings are in good condition; no evidence of mechanical damage, bumps, broken strands, or other visible defects. Yes No
3. All chain slings, including end fastenings, are in good condition; no evidence of excessive wear or mechanical damage; all are properly stored. Yes No
4. Each chain bears a current inspection tag. Yes No
5. Repairs to chains are made only under qualified supervision; all are proof tested for load under the prescribed standards. Yes No
6. All hooks and rings are being tested before being put into service with records of dates and results of such tests. Yes No
7. Inspection of all hooks reveals all in good operation; no visible defects. Yes No
8. Shackles are in good repair; no visible defects. Yes No
9. Cranes and hoists are in good operating condition; regular schedule for servicing maintained; no visible defects; inspection records properly maintained; proper operating procedures are followed. Yes No
10. All industrial trucks are equipped with warning devices; all are equipped with overhead guards. Yes No
11. All industrial trucks, other than electrical-powered are refueled only in fire-safe areas specifically designated for that purpose. Yes No
12. All L-P gas-powered industrial trucks are properly stored away from underground entrances or elevator shafts to avoid the hazard of explosion. Yes No
13. In refueling operations, all engines are stopped; smoking is prohibited. Yes No
14. Where electric batteries are recharged, facilities are provided for flushing and neutralizing spilled electrolite, for fire protection, and adequate ventilation is provided for dispersal of gas emanating from batteries. Yes No
15. The load capacity is indicated on each truck and is strictly observed. Yes No
16. All conveyor systems in good operating order; no visible defects, adequate clearance from aisles and walkways; stopping devices adequate in number and location. Yes No

Hand and Portable Powered Tools

1. All hand and portable power tools are in good operating condition; no defects in wiring; equipped with ground wires. Yes No
2. All portable equipment is equipped with necessary guarding devices. Yes No
3. All compressed air equipment used for cleaning operations is regulated at 30 p.s.i. or less; chip guarding and personal protective equipment is provided. Yes No

Machine Guarding and Mechanical Safety

1. Every production machine has been inspected as to the following items, all found to be in satisfactory operating conditions:
   a) Cleanliness of machine and area Yes No
   b) Securely attached to floor Yes No
   c) Operations guarded Yes No
   d) Illumination Yes No
   e) Effective cut-off devices Yes No
   f) Noise level Yes No
   g) Adjustment Yes No
   i) Material flow Yes No

Material Hazards

1. All hazardous gases, liquids and other materials are properly labeled and stored. Yes No
2. Areas where hazardous materials are in use are fire-safe and restricted to authorized employees. Yes No
3. Where x-ray is used, the area is properly shielded and dosimeters are used and processed for all authorized employees. Yes No
4. Protective clothing is worn by employees when oxidizing agents are being used. Yes No
5. All hazard areas are posted with NO SMOKING signs. Yes No
6. All areas where caustics or corrosives are used have been provided adequately with eye fountains and deluge showers. Yes No

Material Storage

1. All material is stored so as not to create either a fire hazard or a safety hazard to personnel. Yes No
2. All commodities shall be stored, handled and piled with due regard for their fire characteristics. Yes No
3. Outside storage of material is maintained at least 15 ft. from an exterior wall. Yes No
4. Outside storage areas are in good condition; weeds and grass under control. Yes No

Surface Preparation, Finishing and Preservation

1. All spray and dip painting areas are properly shielded, adequately ventilated and well-maintained; equipped with non-explosive electrical equipment. Yes No
2. All dip operations are provided with an automatic fire extinguishing system; adequate first aid supplies and equipment are in immediate area. Yes No
3. All spray booths are of adequate construction with a three-ft. clearance area surrounding each. Yes No
4. Face shields and other protective equipment are provided in steam cleaning operations. Yes. No
5. All abrasive blasting areas properly shielded; no evidence of leakage of shot; operators have adequate protective equipment. Yes No
6. All drying equipment is properly controlled, vented and maintained. Yes No

Personal Protective Equipment

1. Adequate protective clothing and equipment is required for all hazardous operations. Yes No
2. All protective clothing and equipment is properly stored for ready use. Yes No

Welding, Cutting, Heating and Brazing

1. All compressed gases are stored and used according to standards. Yes No
2. Welding operations are properly screened. Yes No
3. Fire watchers are designated where required. Yes No

Medical Facilities and Records

1. The dispensary as equipped, the availability of professional or trained personnel, and the maintenance of records conform to corporate minimum standards and are in compliance with OSHA Standards. Yes No

IV. Most Commonly Cited Violations

The following list of OSHA standards most often cited for violations was transmitted in a Department of Labor News Release on January 15, 1973. The department makes such lists public periodically, and the following material represents an update of listings released in October, 1972. Sections of the Occupational Safety and Health Act cited as the basis of alleged violations are listed in descending order. Part 1910 of the Act covers general industry and Part 1926 covers construction standards.

GENERAL INDUSTRY		CONSTRUCTION	
Section Cited	Subject of Section	Section Cited	Subject of Section
1910.309	National Electrical Code	1926.500	Guardrails, handrails, and covers
.219	Mechanical power transmission apparatus	.451	Scaffolding
.157	Portable fire extinguishers	.450	Ladders
.212	General requirements for all machines	.350	Gas welding & cutting
.213	Woodworking machinery	.401	Grounding and bonding

GENERAL INDUSTRY		CONSTRUCTION	
Section Cited	Subject of Section	Section Cited	Subject of Section
.23	Guarding floor and wall openings and holes	.550	Cranes & derricks
.22	General requirements-walking and working surfaces	.25	Housekeeping
.252	Welding, cutting, & brazing	.152	Flammable & combustible liquids
.215	Abrasive wheel machinery	.400	General electrical
.178	Powered industrial trucks	.402	Electrical equipment installation & maintenance
.265	Sawmills	.150	Fire Protection
.37	Means of egress, general	.652	Trenching
.106	Flammable & combustible liquids	.601	Motor vehicles
.141	Sanitation	.100	Head protection
.107	Spray finishing using flammable or combustible liquids	.552	Materials hoists & personnel hoists & elevators
.242	Hand and portable power tools and equipment - general	.50	Medical services & first aid
.176	Handling materials - general	.501	Stairways
.36	General requirements, means of egress	.300	General requirements, hand and power tools
.179	Overhead & gantry cranes	.651	Excavation
.25	Portable wood ladders	.51	Sanitation
.95	Noise exposure	.28	Personal protective equipment
.151	Medical services & first aid	.102	Eye & face protection
.132	Personal protective equipment - general	.302	Power operated hand tools
.133	Eye & face protection	.351	Arc welding & cutting
.27	Fixed ladders	.105	Safety nets

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